

Telehealth at the University of Washington

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Unique Challenges



Vision

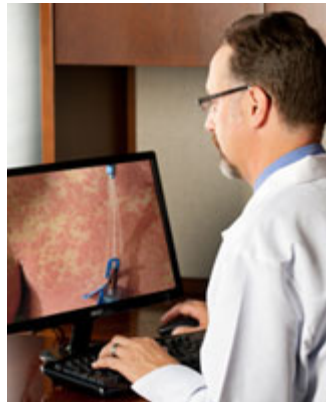
UW Telehealth will be a primary platform for the projection of expertise to, and collaboration with, our community and region for education, training, and provision of expert clinical care in a regionally sustainable manner.

It will be a robust telecommunication system to serve clinical, educational, research and administrative programs and needs.

Types of Telemedicine



1. Live, face to face consultation



2. Store and Forward



3. Remote monitoring

4. Case-based teleconferencing

Current Successes

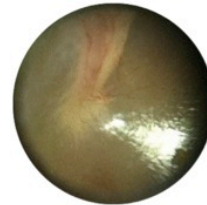
- Telepsychiatry
 - PeaceHealth, Indian tribes, MHIT program
- Teledermatology
 - DOC, CHPW/SeaMar
- TeleBurns
- Telepain
 - NIH funded COE, medical student education, 2x/wk, 50 sites q wk
- Project ECHO
 - Hep C, HIV/AIDS, multiple sclerosis, liver care
- Telestroke
 - 10 different hospitals, PeaceHealth

Local Ideas for Mobile Apps

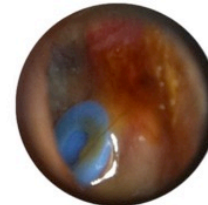
- BiliCam: an app that uses camera to take picture of neonate's skin, compare to scale
- GutGuru: an app that incorporates diet and symptom diary to help manage Irritable Bowel Syndrome
- FoneAstra, an app to sterilize breast milk in Africa

<http://dailyuw.com/archive/2014/06/24/science/health-care-theres-app-bilicam#.U72M9PIduK0>

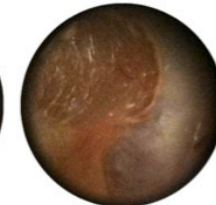
Diagnosis of Acute Problems



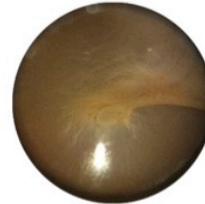
Healthy TM



Infection and tube



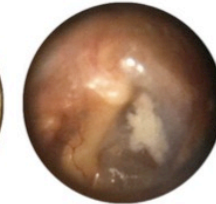
Infection and scarring



Healthy TM



Perforated TM



Infection



New Platforms

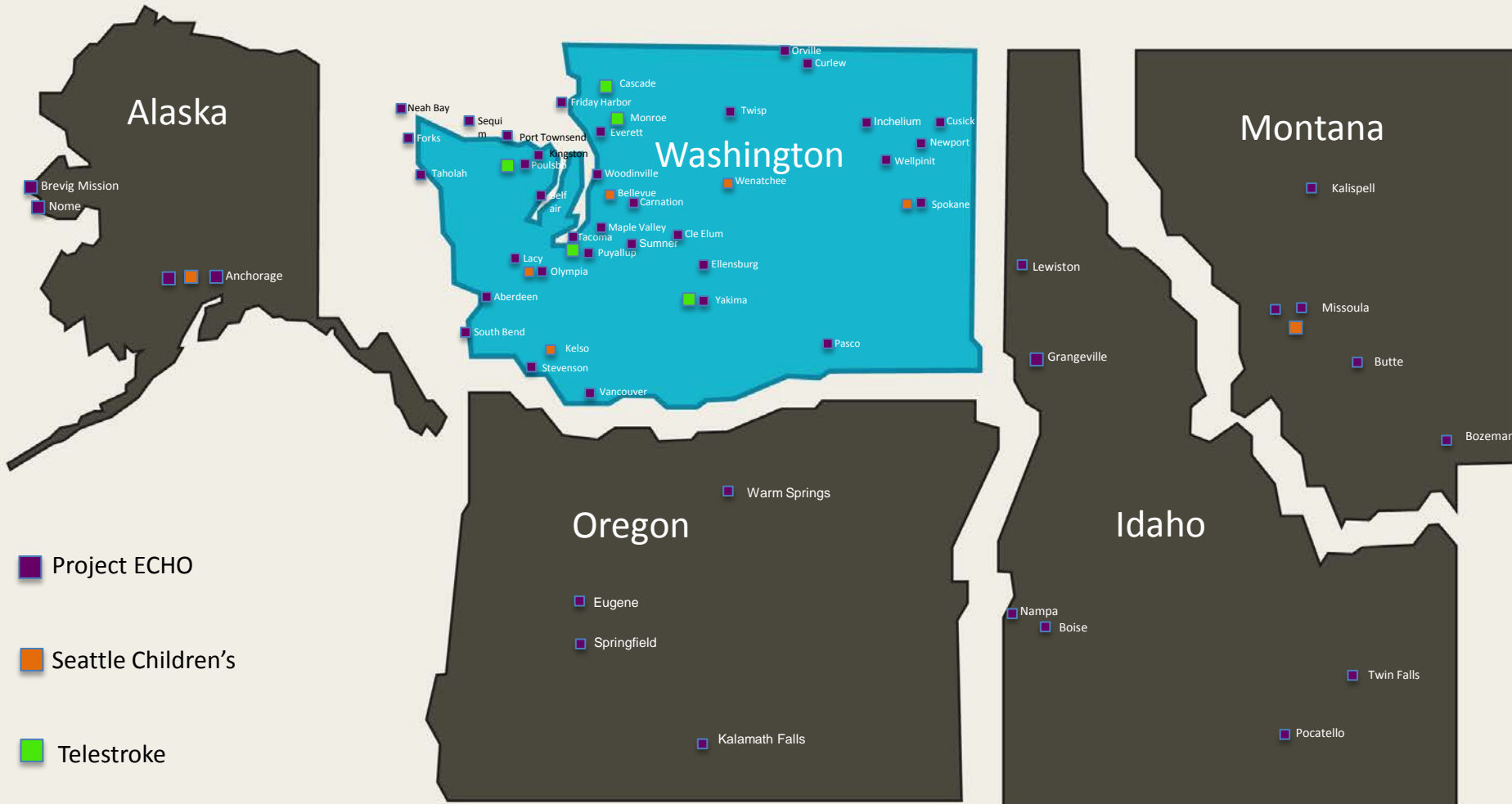


Apple Health Kit



Samsung SimBand and SAMI

MAP OF CURRENT HOSPITALS AND CLINICS



Challenges in Telemedicine

- Poor reimbursement structure
 - CMS requirements:
 - 1) live, face to face videoconference; 2) patient in rural location; 3) patient in health care facility
- Marginal decrease in efficiency
 - Can't overbook
 - More coordination required
 - Occasional technical issues
- Provider perception that it's inferior to in person; increased workload
- How to fit into work flow
- Integration into electronic health record

Opportunities in Telemedicine

- ACA and rise of ACO
 - Can use telemedicine to decrease low-value visits
 - Greater coordination and standardization of practices
- Greater consolidation of health care systems
 - Need for efficiencies
- Customer demand!
- Technology is getting MUCH cheaper
- High mobile phone ownership (>90%, 56% smart phones)*

*Pew Research Center: <http://www.pewresearch.org/fact-tank/2013/06/06/cell-phone-ownership-hits-91-of-adults/>

Chronic Disease, Aging and Telemedicine

- High burden of chronic disease in America
- “5/50” club
- Overlapping physical and mental health issues frequently
- Nearly half of the costs in 5/50 are avoidable
 - Rehospitalizations
 - Poor coordination of care
 - Poor adherence and/or followup
- Big data meets big medicine
 - Predicting high costs
 - Eg. PRISM score

Encouraging results with telemedicine

- Whole System Demonstrator Study (N=3230)
 - UK based study of pts w/ DM, COPD or heart failure
 - Randomized, cluster design in 179 primary care sites
 - Intervention: remote home monitor
- Reduced mortality by nearly half and hospitalizations or ED by ~20%; shorter stay once admitted (avg: 1 d)

Steventon A, et al. Effect of telehealth on use of secondary care and mortality: findings from the Whole System Demonstrator cluster randomised trial. *Brit Med J* 2012; 344:e3874.

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www.uwmedicine.org/Patient-Care/Referrals/Pages/Telehealth-Services.aspx